

NOVACAST 250 HD

High range Water reducing Admixture for Precast Concrete

Description

Novacast 250 HD is optimised for use where the time between concrete mixing and placing is rapid, such as when using bucket skips or direct discharge from mixer to unit. In this instance, the workability life of the concrete is optimized to give a balance between the retention of the workability but still enabling the strength development process to start as soon as possible. The particular molecular configuration of **Novacast 250 HD** accelerates the cement hydration by allowing an increased surface area of the cement particle to react with water. Robustness and controlled retention are distinctive features of the precast concrete produced with **Novacast 250 HD**.

Fields of Application

Novacast 250 HD is suitable for making precast concrete elements with highly workable, non-segregating concrete utilising low water cement ratios and, consequently, high early and final strengths. This can be achieved without the aid of vibration, for economic, ecological and ergonomic precast production.

Features and Benefits

Novacast 250 HD offers the following benefits for the precast concrete industry:

- ✓ Production of highly flowable, robust self-compacting concrete having a low water/cement ratio along with an optimal Rheology and optimised workability retention times
- ✓ Enhanced robustness and consistency in concrete quality with low stickiness
- ✓ Environmentally friendly, CO₂ reduced mid-design optimisation
- ✓ Potential elimination or reduction of heat curing
- ✓ Reduction in curing time or curing temperature

- ✓ Improved surface appearance
- ✓ Elimination of the energy required for placing, compaction and curing
- ✓ Optimisation of the curing cycles

Dosage

The normally recommended dosage rate of **Novacast 250 HD** is approximately:

By Weight – 0.5 kg to 1.5 kg per 100 kg of cement (binder) content.

The dosage rates given above are for typical usages, they are not meant as absolute limits, as other dosages may be utilised in special cases according to specific job conditions. Trial mixes should be carried out to ensure optimum dosage and effect. When the concrete is to be machined by utilising power float or power trowelling methods, we recommend that you contact the CCI Technical Services Department.

Mixing

Novacast 250 HD is a liquid admixture that is added to the concrete during the mixing process. Optimal water reduction is obtained if the **Novacast 250 HD** product is dispensed into the concrete mix after the addition of 70% to 90% of mixing water. Avoid adding the admixture to dry materials. After adding **Novacast 250 HD** allow enough mixing time to secure a homogenous concrete. If necessary, continue mixing and add additional **Novacast 250 HD** to obtain the required workability. Workability levels will start to decrease rapidly after 15 to 30 minutes from mixing (temperature and cement type depending).

Product Data

Structure of the Material	Modified Polycarboxylic Ether based
Appearance	Brown
pH	5 to 7
Alkali content [%]	≤ 3 (by mass)
Chloride content [%]	≤ 0.10 (by mass)

Logistics

Handling and transportation	Refer to Novacast 250 HD Safety Data Sheet
Disposal	Refer to Novacast 250 HD Safety Data Sheet

Compatibility

Novacast 250 HD can be used with all types of cement. **Novacast 250 HD** should not be pre-mixed with other admixtures. If other admixtures are to be used in concrete containing **Novacast 250 HD** they must be dispensed separately.

Shelf life

12 months if stored according to the manufacturer's instructions in unopened containers.

Storage Conditions

Store in original sealed containers and at temperatures between 5°C and 30°C. Store under cover, out of direct sunlight and protect from extremes of temperature. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging.

Packaging

Novacast 250 HD is supplied in bulk, 1000 kg IBCs, 200 kg barrels and 20 kg Cans.

Health & Safety

Before use, refer to the Material Safety Data Sheet (MSDS). The MSDS is available on www.ccichemicals.in or contact us at info@ccichemicals.in.

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